

HAIs

Microspecifications Manual For Reporting of the Healthcare Associated Infection Quality Data Set

July 2012

Effective for 1st Qtr 2012 HAI Data

STATUTORY AUTHORITY: 22 M.R.S.A., §8708-A, Chapter 270

Healthcare Associated Infection Quality Dataset Data Collection and Reporting Instructions

In accordance with the above statutory authority, the following instructions are applicable to all Maine acute care hospitals.

For all patients identified as eligible cases in the specific denominator and numerator categories (minus exclusions) listed in the most current version of the CDC guidance as found at the MHDO website at <www.maine.gov/mhdo>, each hospital or their agent shall report data to the MHDO for the following healthcare associated infection (HAI) quality metrics:

- HAI - 1** Central line catheter associated blood stream infection rate for intensive care unit patients, and;
- HAI - 2** Central line catheter associated blood stream infection rate for high-risk nursery patients.

For all patients identified as eligible cases in the specific denominator and numerator categories listed in the most current versions of the IHI 5 Million Lives Campaign Getting Started Kit: Prevent Central Line Infections and Prevent Ventilator Associated Pneumonia How-to Guides unless such IHI publications are contradicted by the CDC guidance as found at the MHDO website at <www.maine.gov/mhdo>, each hospital or their agent shall report data to the MHDO for the following healthcare associated infection (HAI) quality metrics:

- HAI - 3** Percent compliance with all five evidence-based interventions for patients with intravascular central catheters (central line bundle compliance) in intensive care units;
- HAI - 4** Percent compliance with the four insertion related evidence-based interventions for patients with intravascular central catheters (central line bundle compliance) placed preoperatively, in pre-operative areas, operating rooms, and recovery areas, and;
- HAI - 5** Percent compliance with all four evidence-based interventions for patients with mechanical ventilation (ventilator bundle compliance) in intensive care units.

AMENDED: July 2, 2010

ADDITIONAL REGULATORY INFORMATION

Submission Requirements

1. **Filing Media.** Each hospital or their agent shall file all applicable data sets on diskette, compact disc, or via electronic transmission provided that such diskette, compact disc, or electronic transmission is compatible with the data processing capabilities of the MHDO.
2. **File Submission.** All data file submissions shall be accompanied by an electronic transmittal sheet containing the following information: identification of the health care facility, file name, data period(s) (quarter/year), date sent, and a contact person with telephone number and E-mail address. The data collection and transmittal sheets are posted at the MHDO's website at: <http://mhdo.maine.gov/imhdo/qualitydata.aspx>. The data file naming convention is presented in Appendix A.
3. **Filing Periods.** Data generated in accordance with the provisions of this manual shall be submitted at the end of the 5th month following the end of each calendar quarter in which the service occurred. The filing periods are as follows:

Collection Quarter	Months	Submission Date (no later than)
1st Quarter	January, February, March	September 1st
2nd Quarter	April, May, June	December 1st
3rd Quarter	July, August, September	March 1st
4th Quarter	October, November, December	June 1st

Standards for Data; Notification; Response

Standards. The MHDO or its designee shall evaluate each file submission in accordance with the following standards:

1. For each category of metrics, hospitals shall report each numerator (metric) and denominator (population) as specified in this manual and at the MHDO website at <http://mhdo.maine.gov/imhdo/qualitydata.aspx>.
2. Coding values indicating "data not available", "data unknown", or the equivalent will not be accepted.

3. Notification. Upon completion of this evaluation, the MHDO will promptly notify each hospital whose data submissions do not satisfy the standards for any filing period. This notification will identify the specific file and the data elements within them that do not satisfy the standards.
4. Resubmission. Each hospital notified under of the failure of their submission to meet the standards for filing under MHDO Rules, will resubmit the data within 30 days of the notification by making the necessary changes to satisfy the standards.
5. Replacement of Data Files. No hospital may amend its data submission more than one year after the end of the quarter in which the discharge or service occurred unless it can be established by the hospital that exceptional circumstances occurred. Any resubmission of data after the elapse of the one year period must be approved by the MHDO Board.

Public Access

Information collected, processed and/or analyzed under this rule shall be subject to release to the public or retained as confidential information in accordance with 22 M.R.S.A. § 8707 and Code of Maine Rules 90-590, Chapter 120: Release of Information to the Public, unless prohibited by state or federal law.

Waivers to Data Submission Requirements

If a hospital or ambulatory surgery facility due to circumstances beyond its control is temporarily unable to meet the terms and conditions of this Chapter, a written request must be made to the Executive Director of the MHDO as soon as it is practicable after the hospital has determined that an extension is required. The written request shall include: the specific requirement to be waived; an explanation of the cause; the methodology proposed to eliminate the necessity of the waiver; and the time frame required to come into compliance. The Executive Director shall present the request to the MHDO Board at its next regularly scheduled meeting where the request shall be approved or denied.

Compliance

The failure to file, report, or correct quality data in accordance with the provisions of this Chapter may be considered a violation under 22 MRSA Sec. 8705-A.

DEFINITIONS

“CLALCBSI” Central Line Associated Laboratory Confirmed Bloodstream Infection

Central Line Associated Laboratory Confirmed Bloodstream Infections (CLALCBSI) are defined as laboratory-confirmed bloodstream infections (LCBSI) that are not secondary to an infection meeting CDC/NHSN criteria at another body site as specified in the most current version of the Centers for Disease Control and Prevention’s National Healthcare Safety Network (NHSN) Patient Safety Component Protocol (criteria in Chapter 17 CDC/NHSN Surveillance Definition) (see link on the MHDO’s website at: <http://mhdo.maine.gov/imhdo/qualitydata.aspx>). Report BSIs that are central line-associated (i.e., a central line or umbilical catheter was in place at the time of, or within 48 hours before, onset of the event). NOTE: There is no minimum period of time that the central line must be in place in order for the BSI to be considered central line-associated. Cases of “clinical sepsis” central line-associated blood stream infections in neonatal ICU patients are excluded per CDC’s NHSN Patient Safety Component Protocol.

“Central Line Catheters for CLABSI Rates (HAI-1 and HAI-2)”

The focus of this HAI reporting is to direct surveillance efforts towards those patients with central line catheters most likely to result in unintended nosocomial bloodstream infections. HAI data reporting is limited to central lines inserted in intensive care units (ICUs) for those hospitals with designated critical care units, in mixed acuity units for those hospitals without designated critical care units, or in perioperative areas (in pre-operative areas, operating rooms, and recovery areas). Patients in swing beds or long term care patients are excluded from the measure.

For the purpose of reporting central-line infections and counting central-line days (HAI-1 and HAI-2), a central line catheter is defined using the most current Centers for Disease Control and Prevention’s National Healthcare Safety Network (NHSN) Device-Associated Module for CLABSI Events (see link on the MHDO’s website at: <http://mhdo.maine.gov/imhdo/qualitydata.aspx>.)

Central line: An intravascular catheter that terminates at or close to the heart or in one of the great vessels which is used for infusion, withdrawal of blood, or hemodynamic monitoring. The following are considered great vessels for the purpose of reporting central-line BSI and counting central-line days in the NHSN system: Aorta, pulmonary artery, superior vena cava, inferior vena cava, brachiocephalic veins, internal jugular veins, subclavian veins, external iliac veins, common iliac veins, common femoral veins, and in neonates, the umbilical artery/vein. Tunneled catheters (i.e., ports or portacaths such as those used for hematology and oncology patients) are included.

NOTE: Neither the insertion site nor the type of device may be used to determine if a line qualifies as a central line. The device must terminate in one of these vessels or in or near the heart to qualify as a central line.

NOTE: An introducer is considered an intravascular catheter.

NOTE: Pacemaker wires and other non-lumened devices inserted into central blood vessels or the heart are not considered central lines, because fluids are not infused, pushed, nor withdrawn through such devices.

Infusion: The introduction of a solution through a blood vessel via a catheter lumen. This may include continuous infusions such as nutritional fluids or medications, or it may include intermittent infusions such as flushes or IV antimicrobial administration, or blood, in the case of transfusion or hemodialysis.

Umbilical catheter: A central vascular device inserted through the umbilical artery or vein in a neonate.

Central lines inserted in emergency situations (e.g., in cases of severe trauma or when cardio pulmonary resuscitation is required) are excluded from bundle compliance (excluded from the numerator and denominator).

For the purposes of this reporting effort, central lines inserted for diagnostic purposes (e.g., right heart catheterization, pulmonary angiography) that are normally removed directly after insertion, are not included in HAI reporting because these lines are not the most likely to cause local or systemic complications.

“Central Line Catheters – For CL Bundle Compliance (HAI-3 and HAI-4)”

For the purpose of reporting central-line bundle compliance measures (HAI-3 and HAI-4) a central line catheter is defined as an intravascular non-tunneled catheter as defined above. Tunneled catheters (i.e., ports or portacaths such as those used for hematology and oncology patients) are excluded. For this reporting effort the more long-term type of vascular access device whose proximal end is tunneled subcutaneously from the vascular insertion site and brought out through the skin at an exit site are excluded because these devices are typically inserted in the surgical settings under sterile conditions.

Central lines inserted in emergency situations (e.g., in cases of severe trauma or when cardio pulmonary resuscitation is required) are also excluded from bundle compliance (excluded from the numerator and denominator). Also central lines inserted for diagnostic purposes (e.g., right heart catheterization, pulmonary angiography) that are normally removed directly after insertion, are also excluded from bundle reporting.

“Ventilator” or “Mechanical Ventilation”

A ventilator is a device to assist or control respiration continuously, inclusive of the weaning period, through a tracheostomy or by endotracheal intubation. Lung expansion devices such as intermittent positive-pressure breathing (IPPB); nasal positive end-expiratory pressure (PEEP); and continuous nasal positive airway pressure (CPAP, hypoCPAP) are not considered ventilators unless delivered via tracheostomy or endotracheal intubation (e.g., ET-CPAP).

INSTRUCTIONS

DATA SPECIFICATIONS

Utilization Data/Central Line and Ventilator Days

Hospitals will submit data on the utilization of central lines and ventilators in their facilities by reporting the number of Central Line Days in the past 12 months and the number of Ventilator Days in the past 12 months. If a facility has one or more designated intensive care units (ICUs), they will report Utilization Data/Central Line and Ventilator Days for all their ICU patients (should include all patients in all ICUs). If a facility also has a Neonatal Intensive Care Unit (NIICU)/high risk nursery, they will also report Utilization Data for these patients. If a facility doesn't have a designated ICU, they will report Utilization Data/Central Line and Ventilator Days for every critical care and acute care patient in their mixed acuity unit(s). This does not include swing bed patients. Utilization Data/Central Line and Ventilator Days should be reported for the same units for which a hospital is reporting HAI measures.

Hospitals will report utilization data for the 12 months prior to the end of the reporting period (i.e., the period beginning nine months before the start of the reporting period and including the three months of the reporting period).

Determination of Central Line Days in ICUs, Mixed Acuity Units, and NICUs/High Risk Nurseries

At the same time each day, the number of patients with one or more central lines (tunneled and non-tunneled including ports and portacaths) should be counted and at the end of the month these counts are summed. At the end of the quarter these monthly counts are summed and used as the quarterly denominators for reporting temporary central line days and to report the number of central line days in the past 12 months.

If a patient has more than one central line on a given day, this is counted only as one central line day. If a patient has both a non-umbilical central line and an umbilical catheter on a given day, this is counted as one central line day. Time of day for recording the number of patients with central lines/umbilical catheters should be within a four hour period of the same time each day.

In NICUs and high risk nurseries the number of non-umbilical central line/umbilical catheter days will be stratified and reported separately by birth weight categories (<750 gm, 751-1000 gm, 1001-1500 gm, 1501-2500 gm, and >2500 gm).

Data collections forms are available for the collection of the number of central line days at the Centers for Disease Control and Prevention's National Healthcare Safety Network (NHSN) Members website (see link on the MHDO's website at: <http://mhdo.maine.gov/imhdo/qualitydata.aspx>.) These forms may be edited, and customized by both NHSN member and non-member hospitals for their use in collecting the number of central-line days or umbilical catheter days.

Determination of Ventilator Days in ICUs, Mixed Acuity Units, and NICUs/High Risk Nurseries

At the same time each day, the number of patients with a "ventilator" or "mechanical ventilation" should be counted and at the end of the month these counts are summed. At the end of the quarter these monthly counts are summed and used to report the number of ventilator days in the past 12 months.

Time of day for recording the number of patients with ventilators should be within a four hour period of the same time each day.

Data collections forms are available for the collection of the number of ventilator days) at the Centers for Disease Control and Prevention's National Healthcare Safety Network (NHSN) Members website which can be accessed from a link on the MHDO website. These forms may be edited, and customized by both NHSN member and non-member hospitals for their use in collecting the number of ventilator days.

HAI – 1 Central line catheter associated blood stream infection rate for intensive care unit patients, and;

HAI - 2 Central line catheter associated blood stream infection rate for high-risk nursery patients.

Hospitals will submit data for each Central Line Associated Laboratory Confirmed Bloodstream Infection (CLALCBSI) defined as a laboratory-confirmed

bloodstream infection (LCBSI) in patients with a risk factor of having a central line or umbilical catheter at the time of or within the 48 hours prior to developing the infection. This is regardless of where the central line was inserted in the reporting hospital. However, those patients whose central lines were inserted in another facility prior to their transfer to the reporting facility are excluded from this measure.

Numerator

Using the MHDO HAI Data Collection Form found at the MHDO website at <http://mhdo.maine.gov/imhdo/qualitydata.aspx>, hospitals will report by numerator the number of CLALCBSI. Every patient who has had a central line (or umbilical catheter) in place anytime in the 48 hours prior to the infection regardless of whether they still have the central line (or umbilical catheter) inserted, will be counted. At the end of the quarter these counts are summed and used as the quarterly numerators for reporting CLALCBSIs.

In NICUs and high risk nurseries the number of CLALCBSI will be stratified and reported separately by birth weight categories (<750 gm, 751-1000 gm, 1001-1500 gm, 1501-2500 gm, and >2500 gm).

The hospital will develop a system for collection of the number of patients with LCBSIs from the patient charts. Data collections forms are available for the collection of numerator data at the Centers for Disease Control and Prevention's National Healthcare Safety Network (NHSN) Members website (can be accessed from a link on the MHDO website). These forms may be edited and customized by both NHSN member and non-member hospitals for their use in collecting the number of LCBSIs in their facilities.

Exclusions:

- Patients whose central lines were inserted in another facility prior to their transfer to the reporting facility are excluded from this measure.
- Cases of "clinical sepsis" in neonatal ICU patients are excluded from this measure.

Denominator

Using the MHDO HAI Data Collection Form found at the MHDO website at <http://mhdo.maine.gov/imhdo/qualitydata.aspx>, hospitals will report by denominator the number of central line (or umbilical catheter) days in that quarter. This number may be summed for four quarters of the year to determine a hospital's number of central line days per year.

Exclusions:

- Patients whose central lines were inserted in other facilities prior to their transfer to the reporting facility are excluded from this measure

HAI - 3 Percent compliance with all five evidence-based interventions for patients with intravascular central catheters (central line bundle compliance)

The five evidence-based interventions for the prevention of central line associated blood stream infections for acute care and critical care patients are referred to as the Central Line Bundle elements and include:

- Hand hygiene
- Maximal barrier precautions upon insertion
- Chlorhexidine skin antisepsis
- Optimal Catheter site was selected. To reduce infectious complications, the subclavian is preferred over the jugular or femoral site in the adult population. Other factors to consider include potential for mechanical complications, the risk of subclavian vein stenosis, and catheter operator skill
- Daily review of line necessity with prompt removal of unnecessary lines

The core aspect of the optimal site selection is the risk/benefit analysis by a physician as to which vein is the most appropriate for the patient. It is not the intent of the bundle to force a physician to take an action that he or she feels is not clinically appropriate.

Each element of the bundle must be documented as being completed. It is not sufficient to note in the chart, "Central Line Bundle was followed."

HAI – 3: Hospitals with Less Than 360 Central Line Days per Year

Numerator

Using the MHDO HAI Data Collection Form found at the MHDO website at <http://mhdo.maine.gov/imhdo/qualitydata.aspx>, hospitals with less than 360 temporary central line days per year as measured in the previous year will report by numerator the number of critical or acute care patients in ICUs or mixed acuity units with a temporary central line inserted in that unit for whom all elements of the ICU Central Line Bundle are documented. Swing bed patients are excluded.

Evaluation of compliance with bundle elements will be done one day per week, thirteen weeks per quarter (52 weeks per year). Weekly data will be summed for quarterly reporting. The choice of the day of the week to conduct the compliance

evaluation will be at the discretion of the hospital but evaluation on the same day of the week each week is strongly recommended.

After selecting the day of the week to conduct the compliance evaluation, the hospital will pull the chart for each patient present in the ICU or mixed acuity unit at any time during the previous seven days with a temporary central line that was inserted on that unit. Each chart and/or bundle worksheet will be reviewed to determine whether all four insertion related central line bundle elements were completed and documented for the insertion (e.g., a checklist for the insertion process). The chart will also be review for compliance with the fifth bundle element (daily review for necessity) for the first full day of care following insertion (i.e., was the clinician's review of central line need documented in the chart for that day).

Using this method, hospitals with less than 360 central line days per year will evaluate every patient located in ICUs/mixed acuity units during the previous seven days with a central line for compliance with the first four bundle elements of insertion but the daily review of necessity bundle element will be a sample of that patient's central line days – specifically, only the first full day of care following insertion.

Compliance with the all five bundle elements will be evaluated for compliance only if the central line was inserted in the ICU or mixed acuity unit (not if inserted elsewhere in the hospital). Central lines inserted outside of the ICU or mixed acuity unit are excluded from bundle compliance evaluation.

If the central line was removed before the first full day of care following insertion, this is an indication that the daily review for necessity was done and the line was removed, therefore the fifth bundle element should be considered compliant.

If the patient was transferred to another facility or to another unit within the facility (not an ICU or mixed acuity unit) before the first full day of care, compliance would be evaluated for the first four bundle elements of insertion only. The fifth bundle element would be excluded from bundle compliance for purposes of compliance evaluation since the patient was not present for a full day to receive this element of care.

If a patient in the ICU or mixed acuity unit has a temporary central line for multiple weeks and is present on multiple compliance evaluations, they will be only be evaluated for compliance to the central line bundle during the first weekly compliance evaluation in which they are present. This is because the insertion occurred once and the daily assessment of line necessity (fifth bundle element) is only evaluated for the first full day of care following the insertion. They will not be counted in the numerator or denominators in future compliance evaluations unless they have a new line inserted in the ICU/mixed acuity unit. Then they would be treated as a new central line patient.

Bundle compliance is an “all or nothing” indicator. If any of the elements are not documented for that patient, do not count the patient in the numerator. If a bundle element is contraindicated for a particular patient and this is documented in their chart, then the bundle can still be considered compliant with regards to that element.

Hospital should design their own forms to document bundle elements in the patient’s chart to allow them to assess whether the four elements of central line insertion and the daily review of central line need were completed. Daily charting to account for the clinician’s review of central line need is strongly recommended.

Examples of checklists for the insertion process and for daily charting of review of line necessity may be found on the IHI 5M Lives Campaign, Getting Started Kit: Prevent Central Line Infections How-to Guide as found at the MHDO website at <http://mhdo.maine.gov/imhdo/qualitydata.aspx>.

Exclusions:

- Patients whose lines were not inserted in the ICU or mixed acuity unit
- Patients less than 18 years of age at the date of ICU or mixed acuity unit admission
- Swing bed patients

Denominator

Using the MHDO HAI Data Collection Form found at the MHDO website at <http://mhdo.maine.gov/imhdo/qualitydata.aspx>, hospitals will report by denominator the total number of ICU/mixed acuity unit patients with a temporary central line that was inserted in those units each week in which the compliance evaluation is conducted for each of the thirteen weeks in the reporting quarter. Patients in the ICU or mixed acuity unit with central line catheters inserted for multiple weeks will only be counted during the first week in which their bundle compliance was evaluated unless they have a new line inserted in the ICU or mixed acuity unit. Then they would be treated as a new central line patient.

Exclusions:

- Patients whose lines were not inserted in the ICU or mixed acuity unit
- Patients less than 18 years of age at the date of ICU or mixed acuity unit admission
- Swing bed patients

HAI – 3: Hospitals with Greater Than or Equal to 360 Central Line Days per Year

Numerator

Using the MHDO HAI Data Collection Form found at the MHDO website at <http://mhdo.maine.gov/imhdo/qualitydata.aspx>, hospitals with greater than or equal to 360 temporary central line days per year as measured in the previous year will report by numerator the number of patients present in ICUs or mixed acuity units with a temporary central line inserted in that unit for whom all elements of the ICU Central Line Bundle are documented on a once per week point prevalence survey.

Evaluation of compliance with bundle elements will be done one day per week (on rotating days of the week), thirteen weeks per quarter. Weekly data will be summed for quarterly reporting. The choice of the day of the week to conduct the evaluation will be determined using the Sampling Methods for Bundle Compliance as found in Appendix B. This sampling methodology is based upon the Joint Commission (JC) Specifications Manual for National Hospital Quality Measures, Sampling Methods for the ICU Measure Set. However, it has been modified to include only Monday through Friday (Saturday and Sunday are excluded).

After selecting the day of the week to conduct the point prevalence survey, the hospital will pull the chart for each patient present in ICUs or mixed acuity units on that day with a temporary central line that was inserted in those units. Each chart and/or bundle worksheet will be reviewed to determine whether all four insertion related central line bundle elements were completed and documented for the insertion. The chart will also be review for compliance with the fifth bundle element, daily review of line necessity, for the day of the prevalence survey (i.e., was the clinician's review of central line need documented in the chart for that day).

If the central line was inserted on the same day as the point prevalence survey, this is an indication that the daily review for necessity of the line was completed since the decision was made to insert the line, and therefore the fifth bundle element should be considered compliant.

If the central line was removed before the first full day of care following insertion (inserted and removed on the same day), this is an indication that the daily review for necessity was done and the line was removed, therefore the fifth bundle element should be considered compliant.

If the patient was transferred to another facility or to another unit within the facility (not an ICU or mixed acuity unit) before the first full day of care, compliance would be evaluated for the first four bundle elements of insertion only. The fifth bundle element would be excluded from bundle compliance for purposes of

compliance evaluation since the patient was not present for a full day to receive this element of care.

Using this method, the hospitals with greater than or equal to 360 central line days per year will sample compliance one day per week for every patient with a central line in ICUs or mixed acuity units on that day of the week. Compliance will be evaluated for the four insertion elements regardless of the day the insertion occurred and for daily review for necessity on the day of the prevalence survey. Compliance with the all five bundle elements will be evaluated for compliance only if the central line was inserted in the ICU or mixed acuity unit (not if inserted elsewhere in the hospital).

If a patient in the ICU or mixed acuity unit has a temporary central line for multiple weeks and is present on multiple prevalence survey days, they will be evaluated for compliance to the central line bundle for each week in which a compliance evaluation is conducted when they were present and had the central line. This means the same patient could be counted multiple times towards a hospital's ICU central line bundle compliance percentage.

Bundle compliance is an "all or nothing" indicator. If any of the elements are not documented for that patient, do not count the patient in the numerator. If a bundle element is contraindicated for a particular patient and this is documented in their chart, then the bundle can still be considered compliant with regards to that element.

Hospital should design their own forms to document elements in the patient's chart to allow them to assess whether the four elements of central line insertion and the daily review of central line need were completed. Daily charting to account for the clinician's review of central line need is strongly recommended. Monthly data will be summed for quarterly reporting.

Exclusions:

- Patients whose lines were not inserted in the ICU or mixed acuity unit
- Patients less than 18 years of age at the date of ICU or mixed acuity unit admission
- Swing bed patients

Denominator

Using the MHDO HAI Data Collection Form found at the MHDO website at <http://mhdo.maine.gov/imhdo/qualitydata.aspx>, hospitals will report by denominator the total number of ICU or mixed acuity unit patients with temporary central lines inserted in those units each day of the weekly prevalence survey for each of the thirteen weeks in the reporting quarter. The quarterly

denominator is the sum of the population present for each point prevalence survey for each of the thirteen weeks of the quarter.

Exclusions:

- Patients whose lines were not inserted in the ICU or mixed acuity unit
- Patients less than 18 years of age at the date of ICU or mixed acuity unit admission
- Swing bed patients

HAI - 4 Percent compliance with the four insertion-related evidence-based interventions for patients with intravascular central catheters (central line bundle compliance) placed preoperatively, in pre-operative areas, operating rooms, and recovery areas

The four insertion related evidence-based intervention for the prevention of central line associated blood stream infections for acute care and critical care patients for temporary central lines inserted perioperatively are referred to as the Perioperative Central Line Bundle elements and include:

- Hand hygiene
- Maximal barrier precautions upon insertion
- Chlorhexidine skin antisepsis
- Optimal Catheter site was selected. To reduce infectious complications, the subclavian is preferred over the jugular or femoral site in the adult population. Other factors to consider include potential for mechanical complications, the risk of subclavian vein stenosis, and catheter operator skill

Note: Perioperative central line bundle elements does not include the daily review of line necessity with prompt removal of unnecessary lines although this is included in the ICU central line bundle elements.

The core aspect of the optimal site selection is the risk/benefit analysis by a physician as to which vein is the most appropriate for the patient. It is not the intent of the bundle to force a physician to take an action that he or she feels is not clinically appropriate.

Each element of the bundle must be documented as being completed. It is not sufficient to note in the chart, "Central Line Bundle was followed."

For the purposes of this reporting effort, central lines inserted for diagnostic purposes (e.g., right heart catheterization, pulmonary angiography) in

catheterization labs, interventional radiology units or other procedure areas that are normally removed directly after insertion are not included in HAI reporting.

However, therapeutic lines inserted for infusion, withdrawal of blood, or hemodynamic monitoring by practitioners in perioperative settings (pre-operative areas, operating rooms, or recovery areas) or in procedural areas (catheterization labs) are included in reporting (e.g. an interventional radiologist in **a catheterization lab** inserting a central line in a great vessel would be included).

HAI – 4: Hospitals with Less Than 360 Central Line Days per Year

Numerator

Using the MHDO HAI Data Collection Form found at the MHDO website at <http://mhdo.maine.gov/imhdo/qualitydata.aspx>, hospitals with less than 360 temporary central line days per year as measured in the previous year will report by numerator the number of patients with temporary central lines inserted perioperatively, in pre-operative areas, operating rooms and recovery areas for whom all elements of the Perioperative Central Line Bundle are documented. This includes any patient having a temporary central line inserted in relation to any surgeries performed in any of the hospital's operating rooms including day surgeries and outpatient surgeries. This does not include central lines inserted in the patient's room prior to transport to the operating room.

Sampling will not be permitted for hospitals with less than 360 central line days per year; every patient receiving a temporary central line inserted perioperatively will have bundle compliance evaluated for the four insertion related evidence-based elements. Collection of data for perioperative central line bundle compliance may be done weekly or monthly as the hospital chooses. Data will be summed for quarterly reporting.

Hospitals will pull the chart for each patient receiving a temporary central line in relation to a surgery performed in that hospital. Each chart and/or bundle worksheet will be reviewed to determine whether all four insertion related perioperative central line bundle elements were completed and documented for the insertion (e.g., a checklist for the insertion process).

Bundle compliance is an “all or nothing” indicator. If any of the four perioperative central line bundle elements are not documented for that patient, do not count the patient in the numerator. If a bundle element is contraindicated for a particular patient and this is documented in their chart, then the bundle can still be considered compliant with regards to that element.

Hospital should design their own forms to document elements in the patient's chart to allow them to assess whether the four elements of central line insertion

were completed (e.g., a checklist for the insertion process). Examples of checklists for the insertion process may be found on the IHI 5M Lives Campaign, Getting Started Kit: Prevent Central Line Infections How-to Guide as found at the MHDO website at <http://mhdo.maine.gov/imhdo/qualitydata.aspx>.

Exclusions:

- Patients whose lines were inserted in their room prior to transport to the operating room
- Patients less than 18 years of age at the date of line insertion

Denominator

Using the MHDO HAI Data Collection Form found at the MHDO website at <http://mhdo.maine.gov/imhdo/qualitydata.aspx>, hospitals will report by denominator the total number of patients with temporary central lines inserted preoperatively, in pre-operative areas, operating rooms and recovery areas for the reporting quarter. This includes any patient having a temporary central line inserted in relation to any surgeries performed in any of the hospital's operating rooms including day surgeries and outpatient surgeries.

Exclusions:

- Patients whose lines were inserted in their room prior to transport to the operating room
- Patients less than 18 years of age at the date of line insertion

HAI – 4 Hospitals with Greater Than or Equal to 360 Central Line Days per Year

Numerator

Using the MHDO HAI Data Collection Form found at the MHDO website at <http://mhdo.maine.gov/imhdo/qualitydata.aspx>, hospitals with greater than or equal to 360 temporary central line days per year as measured in the previous year will report by numerator the number of patients with temporary central lines that are inserted preoperatively in pre-operative areas, operating rooms and recovery areas for whom all elements of the Perioperative Central Line Bundle are documented on the once per week point prevalence survey. This includes any patient having a temporary central line inserted in relation to any surgeries performed in any of the hospital's operating rooms including day surgeries and outpatient surgeries. This does not include central lines inserted in the patient's room prior to transport to the operating room.

Evaluation of compliance with bundle elements will be done one day per week (on rotating days of the week), thirteen weeks per quarter. Weekly data will be

summed for quarterly reporting. The choice of the day of the week to conduct the compliance evaluation will be determined using the Sampling Methods for Bundle Compliance as found in Appendix B. This sampling methodology is based upon the Joint Commission (JC) Specifications Manual for National Hospital Quality Measures, Sampling Methods for the ICU Measure Set. However, it has been modified to include only Monday through Friday (Saturday and Sunday are excluded).

After selecting the day of the week to conduct the prevalence survey, the hospital will pull the chart for each patient receiving a temporary central line in relation to a surgery in the hospital on that day. Each chart and/or bundle worksheet will be reviewed to determine whether all four insertion related perioperative central line bundle elements were completed and documented for the insertion (e.g., a checklist for the insertion process).

Bundle compliance is an “all or nothing” indicator. If any of the four perioperative central line bundle elements are not documented for that patient, do not count the patient in the numerator. If a bundle element is contraindicated for a particular patient and this is documented in their chart, then the bundle can still be considered compliant with regards to that element.

Hospital should design their own forms to document elements in the patient’s chart to allow them to assess whether the four elements of perioperative central line insertion were completed. Examples of checklists for the insertion process may be found on the IHI 5M Lives Campaign, Getting Started Kit: Prevent Central Line Infections How-to Guide as found at the MHDO website at <http://mhdo.maine.gov/imhdo/qualitydata.aspx>.

Exclusions:

- Patients whose lines were inserted in their room prior to transport to the operating room
- Patients less than 18 years of age at the date of line insertion

Denominator

Using the MHDO HAI Data Collection Form found at the MHDO website at <http://mhdo.maine.gov/imhdo/qualitydata.aspx>, hospitals will report by denominator the total number of patients with temporary central lines inserted preoperatively, in pre-operative areas, operating rooms and recovery areas on the day of the weekly prevalence survey for each of the thirteen weeks in the reporting quarter. This includes any patient having a temporary central line inserted in relation to any surgeries performed in any of the hospital’s operating rooms including day surgeries and outpatient surgeries on the day of the weekly compliance evaluation. Each patient having a central line inserted related to surgery on the day of the weekly compliance evaluation will be evaluated for

compliance to the bundle. The quarterly denominator is the sum of the patients having perioperative central lines inserted on the day of each point prevalence survey for each of the thirteen weeks of the quarter.

Exclusions:

- Patients whose lines were inserted in their room prior to transport to the operating room
- Patients less than 18 years of age at the date of line insertion

HAI - 5 Percent compliance with all five evidence-based interventions for patients with mechanical ventilation (ventilator bundle compliance) in intensive care units.

The five evidence-based interventions for the prevention of ventilator associated pneumonia are referred to the Ventilator Bundle elements and include:

- Head of the bed elevation (HOB) to between 30 and 45 degrees
- Daily “sedative interruption” and daily assessment of readiness to extubate
- PUD (peptic ulcer disease) prophylaxis
- DVT (deep venous thrombosis) prophylaxis
- Daily oral care with chlorhexidine

Each chart and/or bundle worksheet will be reviewed to determine whether all five bundle elements were completed and documented. Daily charting to account for each of the bundle elements is strongly recommended. This charting should account for verification of practitioner orders regarding “readiness to extubate.” It is not sufficient to note in the chart, “Ventilator Bundle was followed.”

Please note that the second bundle element consists of two parts – “sedative interruption” (or “sedation vacation”) and assessment of readiness to be removed from mechanical ventilation. Assessing the need for extubation alone is insufficient. Research has shown that daily lightening of sedation results in a marked and highly significant reduction in time on mechanical ventilation (except where sedation vacation medically contraindicated e.g., trauma patient in a medically induced coma).

HAI – 5 Hospitals with Less Than 180 Ventilator Days per Year

Numerator

Using the MHDO HAI Data Collection Form found at the MHDO website at <http://mhdo.maine.gov/imhdo/qualitydata.aspx>, hospitals with less than 180 ventilator days per year as measured in the previous year will report by numerator the number of patients in the ICUs and mixed acuity units with a “ventilator” or “mechanical ventilation” for which all elements of the ICU Ventilator Bundle are documented.

Evaluation for compliance with bundle elements will be done one day per week thirteen weeks per quarter (52 weeks per year). Weekly data will be summed for quarterly reporting. The choice of the day of the week to conduct the compliance evaluation will be at the discretion of the hospital but evaluation on the same day of the week each week is strongly recommended.

After selecting the day of the week to conduct the compliance evaluation, the hospital will pull the chart for each patient present in the ICU or mixed acuity unit on a ventilator at any time during the previous 7 days. Each chart and/or bundle worksheet will be reviewed to determine whether all five ventilator bundle elements were completed and documented for the first full day of care following intubation. Each patient in the ICU or mixed acuity unit having a ventilator at any time during the previous 7 days will be evaluated for compliance to the ICU ventilator bundle for their first full day of care after intubation.

Using this method, the hospitals with less than 180 ventilator days per year will have every patient with a ventilator evaluated for compliance with all five of the ventilator bundle elements but only for a sample of the patient’s ventilator days – specifically, only for the first full day of care following intubation.

If the patient was intubated and extubated within a twelve hours period, the patient is excluded from bundle compliance evaluation.

If the patient was transferred to another facility before one full day of care, the patient is excluded from bundle compliance evaluation.

If the patient was on mechanical ventilation for more than twelve hours but was extubated before the first full day of care, this is an indication that the daily “sedative interruption” and assessment of readiness to extubate was done and mechanical ventilation was removed, therefore the second bundle element should be considered compliant.

For the purposes of bundle compliance evaluation, if PUD and DVT prophylaxis and daily oral care were documented as ordered in the patient’s chart, these bundle elements are considered compliant.

If a patient in the ICU or mixed acuity unit is on mechanical ventilation for multiple weeks and is present on multiple compliance evaluations, they will only be evaluated for compliance to the ventilator bundle during the first weekly

compliance evaluation in which they are present. This is because the bundle is only evaluated for the first full day of care following intubation. They will not be counted in the numerator or denominator in future compliance evaluations unless they are extubated and re-intubated. Then they would be treated as a new ventilator patient.

Bundle compliance is an “all or nothing” indicator. If any of the elements are not documented for that patient, do not count the patient in the numerator. If a bundle element is contraindicated for a particular patient and this is documented in their chart, then the bundle can still be considered compliant with regards to that element.

Hospital should design their own forms to document elements in the patient’s chart to allow them to assess whether the five elements of the ICU ventilator bundle were completed. Daily charting is strongly recommended.

Examples of checklists for the bundle charting process may be found on the IHI 5M Lives Campaign, Getting Started Kit: Prevent Ventilator Associated Pneumonia How-to Guide as found at the MHDO website at <http://mhdo.maine.gov/imhdo/qualitydata.aspx>.

Exclusions:

- Patients less than 18 years of age at the date of admission
- Patients on mechanical ventilation for less than twelve hours

Denominator

Using the MHDO HAI Data Collection Form found at the MHDO website at <http://mhdo.maine.gov/imhdo/qualitydata.aspx>, hospitals will report by denominator the total number of patients with a ventilator in the ICUs and mixed acuity units each week in which the compliance evaluation is conducted for each of the thirteen weeks in the reporting quarter. Patients in the ICU or mixed acuity unit on mechanical ventilation for multiple weeks will only be counted during the first week in which their bundle compliance was evaluated unless they are extubated and re-intubated. Then they would be treated as a new ventilator patient.

Exclusions:

- Patients on mechanical ventilation for less than twelve hours
- Patients less than 18 years of age at the date of admission

HAI – 5 Hospitals Greater Than or Equal to 180 Ventilator Days per Year

Numerator

Using the MHDO HAI Data Collection Form found at the MHDO website at <http://mhdo.maine.gov/imhdo/qualitydata.aspx>, hospitals with greater than or equal to 180 ventilator days per year as measured in the previous year will report by numerator the number of patients in the ICUs and mixed acuity units with a ventilator or mechanical ventilation for whom all elements of the ICU Ventilator Bundle are documented on the once per week point prevalence survey.

Evaluating for compliance with bundle elements will be done one day per week (on rotating days of the week), thirteen weeks per quarter. Weekly data will be summed for quarterly reporting. The choice of the day of the week to conduct the compliance evaluation will be determined using the Sampling Methods for Bundle Compliance as found in Appendix B. This sampling methodology is based upon the Joint Commission (JC) Specifications Manual for National Hospital Quality Measures, Sampling Methods for the ICU Measure Set. However, it has been modified to include only Monday through Friday (Saturday and Sunday are excluded).

After selecting the day of the week to conduct the point prevalence survey, the hospital will pull the chart for each patient present in the ICU or mixed acuity unit with a ventilator on that day. Each chart and/or bundle worksheet will be reviewed to determine whether all five ICU ventilator bundle elements were completed and documented for the day of the prevalence survey.

If the patient was intubated and extubated within a twelve hours period, the patient is excluded from bundle compliance evaluation.

If the patient was transferred to another facility before one full day of care, the patient is excluded from bundle compliance evaluation.

If the patient was on mechanical ventilation for more than twelve hours but was extubated before the first full day of care, this is an indication that the daily “sedative interruption” and assessment of readiness to extubate was done and mechanical ventilation was removed, therefore the second bundle element should be considered compliant.

For the purposes of bundle compliance evaluation, if PUD and DVT prophylaxis were documented as ordered in the patient’s chart, these bundle elements are considered compliant.

Using this method, the hospitals with greater than or equal to 180 ventilator days per year will sample all five elements of bundle compliance one day per week for every patient with a ventilator in the ICUs and mixed acuity units on that day of the week.

If a patient in the ICU or mixed acuity unit and on mechanical ventilation for multiple weeks and is present on multiple prevalence survey days, they will be evaluated for compliance to the ventilator bundle for each week in which a compliance evaluation is conducted in which they were on the ventilator. This means the same patient could be counted multiple times towards a hospital's ICU ventilator bundle compliance percentage.

Bundle compliance is an "all or nothing" indicator. If any of the elements are not documented for that patient, do not count the patient in the numerator. If a bundle element is contraindicated for a particular patient and this is documented in their chart, then the bundle can still be considered compliant with regards to that element.

Hospital should design their own forms to document elements in the patient's chart to allow them to assess whether the five elements of the ICU ventilator bundle were completed. Daily charting is strongly recommended.

Examples of checklists for the bundle charting process may be found on the IHI 5M Lives Campaign, Getting Started Kit: Prevent Ventilator Associated Pneumonia How-to Guide as found at the MHDO website at <http://mhdo.maine.gov/imhdo/qualitydata.aspx>.

Exclusions:

- Patients less than 18 years of age at the date of ICU or mixed acuity unit admission

Denominator

Using the MHDO HAI Data Collection Form found at the MHDO website at <http://mhdo.maine.gov/imhdo/qualitydata.aspx>, hospitals will report by denominator the total number of ICU or mixed acuity patients with a ventilator each day of the weekly prevalence survey for each of the thirteen weeks in the reporting quarter. The quarterly denominator is the sum of the population present for each point prevalence survey for each of the thirteen weeks of the quarter.

Exclusions:

- Patients less than 18 years of age at the date of ICU or mixed acuity admission

FREQUENTLY ASKED QUESTIONS HAI-1 through HAI-5

- 1. We had a patient who was intubated on March 7th and then extubated on March 8th (greater than 12 hours after intubation). The patient did poorly and required re-intubation 90 minutes later. Successful extubation after the second ventilation occurred on March 10th. Do we count this as two separate events and measure compliance with two bundles? Do we count this as four vent days?**

For the compliance measure (HAI-5) for a hospital with <180 ventilator days per year the manual states that patients on a ventilator for multiple weeks are not counted on separate weeks unless extubated and re-intubated (a separate intubation of the same patient is a separate measurement and should be captured). Because the first intubation was greater than 12 hours this period of intubation should be counted. The question remains whether one should combine the two periods into one. We suggest not. Here's how this scenario should be classified.

Evaluate whether 1) the head of the bed was elevated, whether 2) the PUD prophylaxis was ordered in chart, 3) whether the DVT prophylaxis was ordered in chart for the first period of intubation, and 4) whether daily oral care with chlorhexidine was documented. Obviously 5) the "sedative interruption" and daily assessment of need to extubate was completed because you chose to extubate.

After the patient was re-intubated 90 minutes later (still on the 8th) they should be again be evaluated (as a second case in your denominator) for this second intubation period for all five elements and this patient will be counted twice in the HAI-5 denominator.

To determine the number of ventilator days to report for Utilization Data (number of ventilator days in the past 12 months), we would count based on the normal routine for counting ventilator days. According to page 9 of the manual, *"At the same time each day, the number of patients with a 'ventilator' or 'mechanical ventilation' should be counted and at the end of the month these counts are summed. At the end of the quarter these monthly counts are summed and used to report the number of ventilator days in the past 12 months. Time of day for recording the number of patients with ventilators should be within a four hours period of the same time each day."*

So number of ventilator days depends on whether this patient was on the ventilator at the time you normally did the "census" of patients on ventilators during the first intubation (might have missed this period) or during the second intubation (might have made one or both days' census counts in this period). One would expect them to be counted as between 1 and 3 days (likely 2 vent. days) for the number of ventilator days.

- 2. *If a triple lumen catheter is inserted in the OR and the patient is transferred to ICU – do we only count the first 4 bundle elements since insertion occurred in the peri-operative setting?***

Yes this is an HAI-4 bundle measure and should be evaluated for compliance only with first 4 central line bundle elements. This is because the central line was not inserted in the ICU and only those inserted in ICU (or mixed acuity unit) are measured for the daily assessment of need under HAI-3 bundle compliance.

- 3. *If a PICC is inserted in the OR by interventional radiologist and the patient is transferred to ICU – do we only count the first 4 bundle elements since insertion occurred in the peri-operative setting?***

Yes - this is another HAI-4 bundle measure (without daily assessment of need). Quoting from the HAI Manual, HAI-4 Section (pg. 17):

“However, therapeutic lines inserted for infusion, withdrawal of blood, or hemodynamic monitoring by practitioners in perioperative settings (pre-operative areas, operating rooms, or recovery areas) or in procedural areas (catheterization labs) are included in reporting (e.g. an interventional radiologist in an operating room inserting a central line in a great vessel would be included).”

- 4. *Please will you clarify if PICC insertions for "Outpatients" are counted in the bundle measure? I interpret the standards to exclude them since these are not acute care/critical care patients.***

We understand why you would think the bundle would be limited to acute care patients but we DO include outpatient surgery central lines. Our manual states (pg. 17, HAI-4 Numerator section)

“This includes any patient having a temporary central line inserted in relation to any surgeries performed in any of the hospital’s operating rooms including day surgeries and outpatient surgeries.”

We try to balance the need to mandate measures broadly enough to provide benefits to as many patients as possible yet narrow enough to ensure they are applied appropriately. We did discuss this balance in the Definition section for “Temporary Central Line Catheters” (page 6-7):

“The focus of this HAI reporting is to direct surveillance efforts towards those patients with central line catheters most likely to result in unintended nosocomial bloodstream infections. All patients at risk, regardless of their location in the hospital or the location of the insertion of their central line catheter, should receive the benefits of surveillance. However, due to the

limited resources within hospitals, HAI data reporting is limited to central lines inserted in intensive care units (ICUs) for those hospitals with designated critical care units, in mixed acuity units for those hospitals without designated critical care units, or in perioperative areas (in pre-operative areas, operating rooms, and recovery areas)."

"Because the evidence-based bundle elements from literature demonstrated benefits of bundle compliance for critical care or acute care patients and because the risks of central line infections differ in critical care patients and those of lower acuity, this reporting effort is limited to central line catheters inserted in critical care or acute care patients (not those in long term or swing beds). Swing bed patients are excluded."

So although we did try to limit to critical or acute care patients, we did intend that the measures be applied to those cases most likely to result in unintended nosocomial bloodstream infections. And although some outpatient surgery patients may not be critical/acute care patients in the strictest sense, any central line associated with a surgical procedure (even one where the patient doesn't stay overnight) is appropriate for bundle compliance. So we extended the measure to any perioperatively inserted central line.

- 5. Please will you clarify whether reporting of bundle compliance for our Med/Surg unit should occur? I interpret the standards for HAI-3 to include our "mixed acuity" unit only – not our Med/Surg unit. Although our process is to follow the bundle process hospital wide (Med/Surg and OB units), I do not believe this information is to be included on the report which is submitted to the State.**

Correct. You should measure and report bundle compliance for your ICU if you have a dedicated one and, if not, report for your mixed acuity unit only.

- 6. Regarding HAI 4, should we now submit bundle data on lines inserted by our interventional radiologist? Please will you confirm that although we count "bundle" data under the peri-op measure we only include number of central line days for this patient if they reside in our mixed acuity unit. We do not count number of central line days for this patient if the patient resides on our Med Surg unit or OB?**

Correct. This is because the number of central line days should only be collected and reported for the same units being reported under HAI-3.

As stated under Utilization Data/Central Line and Ventilator Days on pg. 8,

“If a facility has one or more designated intensive care units (ICUs), they will report Utilization Data/Central Line and Ventilator Days for all their ICU patients (should include all patients in all ICUs). If a facility also has a Neonatal Intensive Care Unit (NIICU)/high risk nursery, they will also report Utilization Data for these patients. If a facility doesn’t have a designated ICU, they will report Utilization Data/Central Line and Ventilator Days for every critical care and acute care patient in their mixed acuity unit(s). This does not include swing bed patients. Utilization Data/Central Line and Ventilator Days should be reported for the same units for which a hospital is reporting HAI measures.”

7. Can you clarify the types of catheters that are included in the definition of Central Line Catheters for CLABSI Rate reporting (HAI-1 and HAI-2)?

Both tunneled and non-tunneled catheters are included. Non-tunneled catheters are defined as vascular access devices inserted by a puncture directly through the skin and to the intended vascular location without passing through subcutaneous tissue. Examples include but are not limited to more short-term types of catheters, i.e. peripherally inserted central catheters (PICC) and subclavian single, double, or triple lumens. Introducers in great vessels and umbilical catheters and non-umbilical central lines in neonates (per CDC’s NHSN Patient Safety Component Protocol) are also included.

Tunneled catheters are defined as a vascular access device whose proximal end is tunneled subcutaneously from the vascular insertion site and brought out through the skin at an exit site. Types of tunneled catheters include but are not limited to more long-term types, i.e. Hickman, Broviac, Raaf, and Groshong. Permanent central lines including certain dialysis catheters and implanted catheters (e.g., ports or portacaths such as those used for hematology and oncology patients) are also included.

However, pace-maker wires and other non-lumened devices inserted into central blood vessels or the heart are NOT included because fluids are not infused, pushed, nor withdrawn through such devices.

Also central lines inserted for diagnostic purposes (e.g., right heart catheterization, pulmonary angiography) that are normally removed directly after insertion, are NOT included in HAI reporting because these lines are not the most likely to cause local or systemic complications.

8. Can you clarify the types of catheters that are included in the definition of Central Line Catheters for CL Bundle Compliance (HAI-3 and HAI-4)?

For the purpose of reporting central-line bundle compliance measures (HAI-3 and HAI-4) a central line catheter is defined for CLABSI Rate reporting (HAI-1 and HAI-2) above EXCEPT tunneled catheters are excluded (e.g., ports or portacaths such as those used for hematology and oncology patients). The more long-term type of vascular access device whose proximal end is tunneled subcutaneously from the vascular insertion site and brought out through the skin at an exit site are excluded because these devices are typically inserted in the surgical settings under sterile conditions.

Also central lines inserted in emergency situations (e.g., in cases of severe trauma or when cardio pulmonary resuscitation is required) are EXCLUDED from bundle compliance (excluded from the numerator and denominator). As noted in the CDC Healthcare Infection Control Practices Advisory Committee's Guidelines for Prevention of Intravascular Catheter-Related Infections (2011), "When adherence to aseptic technique cannot be ensured (i., e., catheters inserted during a medical emergency), replace the catheter as soon as possible, i.e., within 48 hours."

Central lines inserted for diagnostic purposes (e.g., right heart catheterization, pulmonary angiography) that are normally removed directly after insertion, are also EXCLUDED from bundle reporting.

- 9. *We had a patient who was classified as brain dead and was being maintained on a ventilator only until the family could arrive from Canada. They did not receive PUD prophylaxis because it was meaningless to do so (they would expire as soon as the family authorized removal of the ventilator). Typically these patients are not on a ventilator more than 24 hours (and would not be included in data reporting) but in this case there were on several hours beyond the initial 24. Do we count this as bundle failure?***

When hospitals have unique situations that don't meet the normal pattern of care, they should contact the MHDO for clarification on appropriate coding on a case-by-case basis.

- 10. *How do you count central line days for patients with tunneled catheters (ports or portacaths). This is especially relevant for chemo patients who are admitted with these permanent lines which might not be access during their entire stay.***

You should count the tunneled central line from the first day the line is accessed and continue to count throughout the entire stay (unless the line is removed during stay).

So as this relates to chemo patients that have these permanent lines which might not be access during their stay; if the line is never accessed,

they are not counted. But once accessed by your staff, your facility is deemed responsible for infections to the line until discharged. And each day after it is accessed will be counted as a central line day.

Appendix A

Sampling Methods for Bundle Compliance

Appendix A

Sampling Methods for Bundle Compliance

From the Joint Commission Specifications Manual for National Hospital Quality Measures, Sampling Methods for the ICU Measure Set

The day of the week is the sampling unit used for the bundle compliance measures. To be able to analyze day of the week variability in the measure rates within a month, it is desirable to sample a different day of the week for each week of the month. The most efficient way to do this is to randomly sample a sequence of days of the week for each month, one day sampled for each week of the month, here called a random permutation. Once a permutation is sampled, the sampling plan is set for the month. A table of random permutations which can be used for this purpose is given in Table 1.

The sampling procedure is to randomly choose a number from 1 to 35. Locate this number under the permutation column in Table 1. Starting with week 1 and continuing through week 4, find the day of the week to collect data for each week in the four week period under the sampled permutation. For example, say that the number 25 was randomly chosen. Then looking at permutation 25 in Table 1, we would collect the bundle data on Wednesday in week 1, Friday in week 2, Monday in week 3, and Tuesday in week 4. Once the four sampled collection days have been used, then redraw for the next four week sample. Do this every four weeks throughout the year.

Table 1: Random Permutations for Sampling Days of the Week for the Bundle Compliance Measures

Permutation	Week 1	Week 2	Week 3	Week 4
1	Friday	Monday	Tuesday	Wednesday
2	Thursday	Tuesday	Monday	Friday
3	Thursday	Friday	Tuesday	Wednesday
4	Tuesday	Monday	Wednesday	Friday
5	Tuesday	Wednesday	Friday	Thursday
6	Monday	Tuesday	Thursday	Friday
7	Monday	Wednesday	Tuesday	Thursday
8	Wednesday	Tuesday	Friday	Thursday
9	Friday	Thursday	Wednesday	Monday
10	Friday	Wednesday	Monday	Tuesday
11	Thursday	Wednesday	Friday	Monday
12	Wednesday	Friday	Thursday	Tuesday
13	Monday	Tuesday	Thursday	Wednesday
14	Monday	Friday	Thursday	Wednesday

15	Friday	Monday	Tuesday	Thursday
16	Friday	Tuesday	Wednesday	Monday
17	Tuesday	Monday	Friday	Thursday
18	Monday	Friday	Thursday	Tuesday
19	Wednesday	Thursday	Monday	Tuesday
20	Tuesday	Wednesday	Monday	Friday
21	Wednesday	Monday	Friday	Thursday
22	Wednesday	Tuesday	Thursday	Monday
23	Wednesday	Thursday	Tuesday	Friday
24	Monday	Friday	Tuesday	Thursday
25	Wednesday	Friday	Monday	Tuesday
26	Tuesday	Thursday	Friday	Monday
27	Wednesday	Tuesday	Friday	Thursday
28	Tuesday	Friday	Monday	Wednesday
29	Wednesday	Tuesday	Friday	Monday
30	Tuesday	Thursday	Monday	Wednesday
31	Thursday	Friday	Monday	Tuesday
32	Friday	Monday	Wednesday	Thursday
33	Thursday	Wednesday	Tuesday	Monday
34	Tuesday	Monday	Wednesday	Thursday
35	Monday	Friday	Wednesday	Tuesday

Appendix B

Excel File Naming Convention for HAI Data Submission

Excel File Naming Convention for HAI Data Submission

The **Naming Convention** for the Healthcare Associated Infection data files is as follows. Please name your Excel file before submission using the format as noted below:

HAI-XXXXXX-2012QTR3 for data from July, August, and September of **2012** and due to the Maine Health Data Organization (MHDO) by March 1st, **2013**.

HAI-XXXXXX-2012QTR4 for data from October, November, and December of **2012** and due to the MHDO by June 1st, **2013**.

HAI-XXXXXX-2013QTR1 for data generated in January, February, and March of **2013** and due to the MHDO by September 1st, **2013**.

HAI-XXXXXX-2013QTR2 for data from April, May, and June of **2013** and due to the MHDO by December 1st, **2013**.

The data file naming will continue in the same fashion for future quarters and years of data.

Where **XXXXXX** in the file name is the hospital's MHDO ID Number as listed below.

MHDO ID Number	HOSPITAL NAME
200018	AROOSTOOK MEDICAL CENTER
200051	BLUE HILL MEMORIAL
200007	BRIDGTON HOSPITAL
200023	C.A. DEAN MEMORIAL
200055	CALAIS REGIONAL
200031	CARY MEDICAL CENTER
200024	CENTRAL MAINE MEDICAL CENTER
200027	DOWN EAST COMMUNITY
200033	EASTERN MAINE MEDICAL CENTER
200037	FRANKLIN MEMORIAL
200040	H.D. GOODALL
200026	HOULTON REGIONAL
200041	INLAND HOSPITAL
200050	MAINE COAST MEMORIAL
200015	MAINE GENERAL – AUGUSTA & WATERTOWN
200009	MAINE MEDICAL CENTER
200066	MAYO REGIONAL
200008	MERCY HOSPITAL
200044	MID-COAST HOSPITAL
200002	MILES MEMORIAL
200003	MILLINOCKET REGIONAL

200038	MT DESERT ISLAND
200052	NORTHERN MAINE MEDICAL CENTER
200025	PARKVIEW ADVENTIST MEDICAL CTR
200063	PENOBSCOT BAY MEDICAL CENTER
200062	PENOBSCOT VALLEY HOSPITAL
200012	REDINGTON-FAIRVIEW GENERAL
200016	RUMFORD HOSPITAL
200028	SEBASTICOOK VALLEY HOSPITAL
200019	SOUTHERN MAINE MEDICAL CENTER
200006	ST ANDREWS
200001	ST JOSEPH
200034	ST MARYS REGIONAL MEDICAL CENTER
200032	STEPHENS MEMORIAL
200013	WALDO COUNTY GENERAL
200020	YORK HOSPITAL